J. S. MERRITT.

COIN CONTROLLED LOCK.

APPLICATION FILED NOV. 19, 1908.

963,379.

Patented July 5, 1910.

2 SHEETS—SHEET 1.

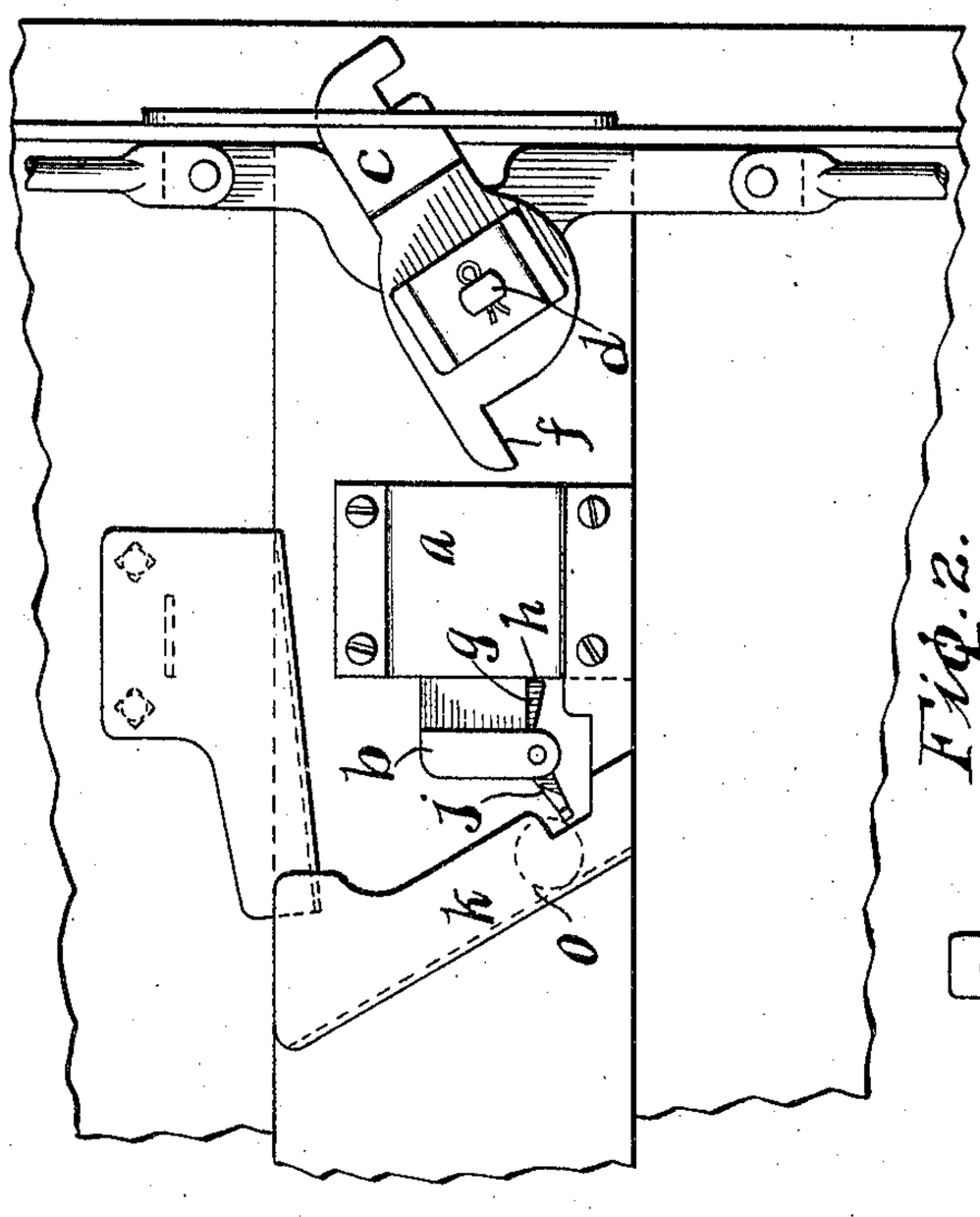

Fig. 1.

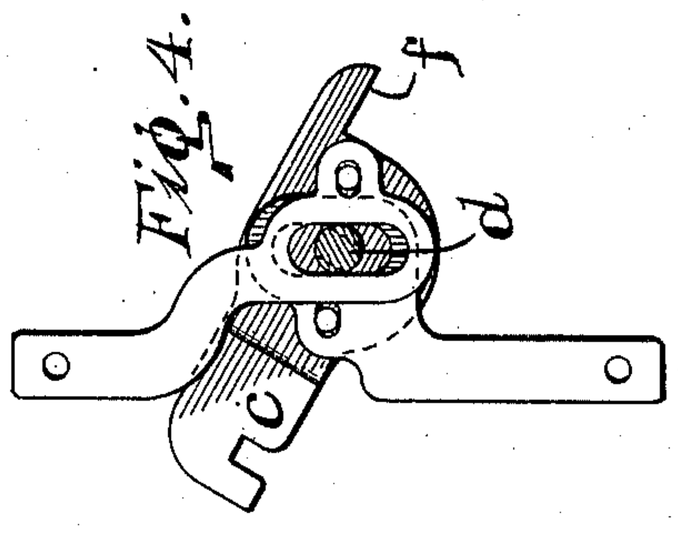

Fig. 4.

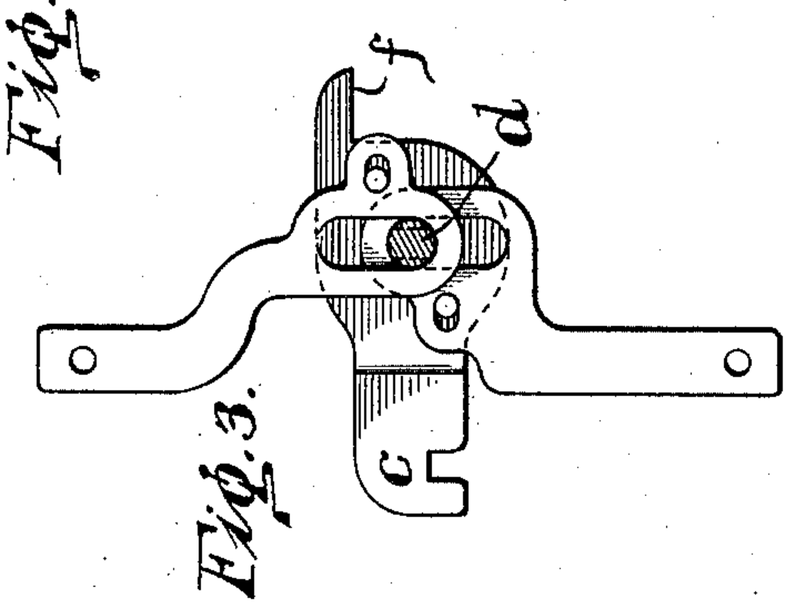

Fig. 3.

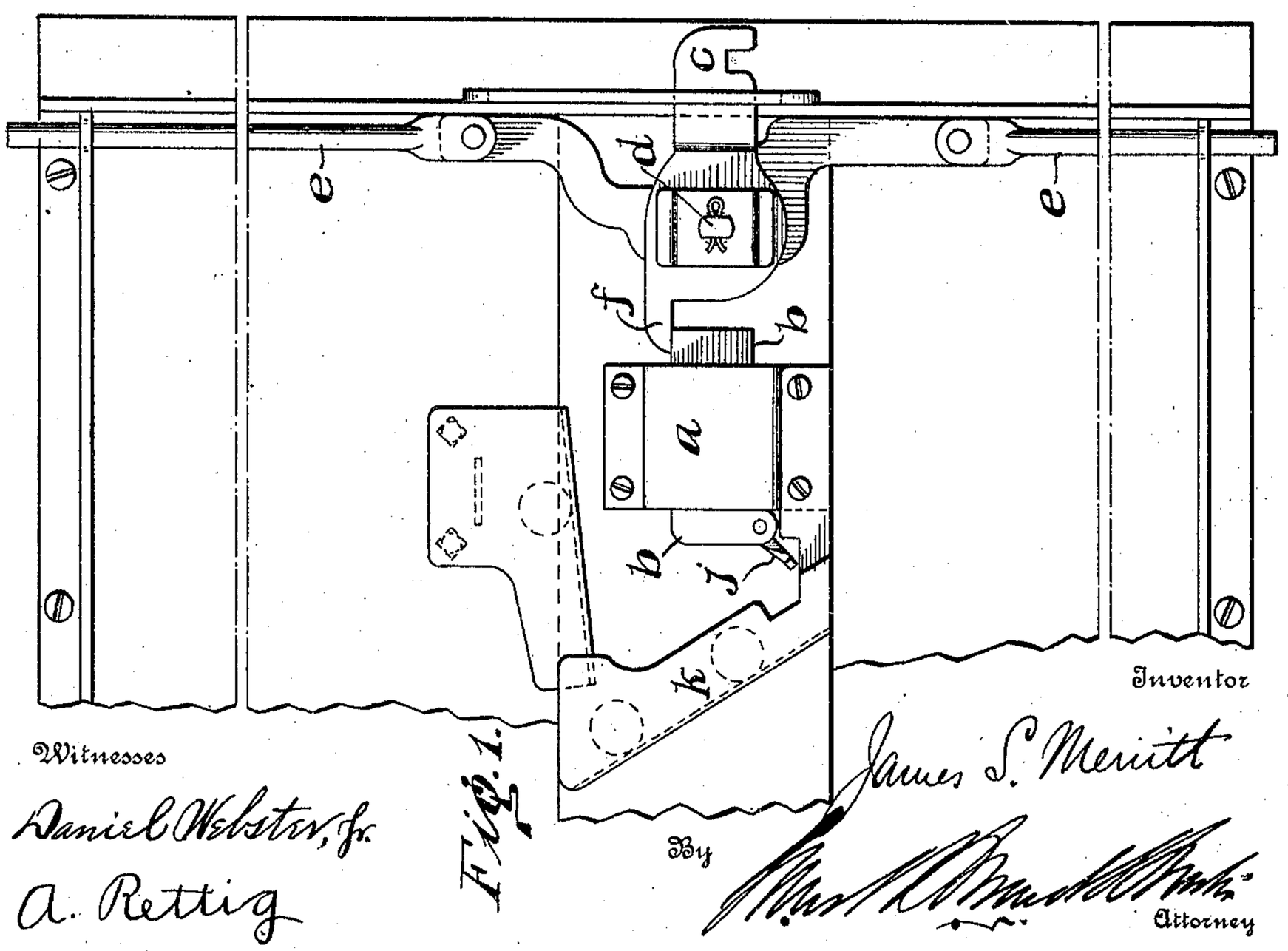

Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

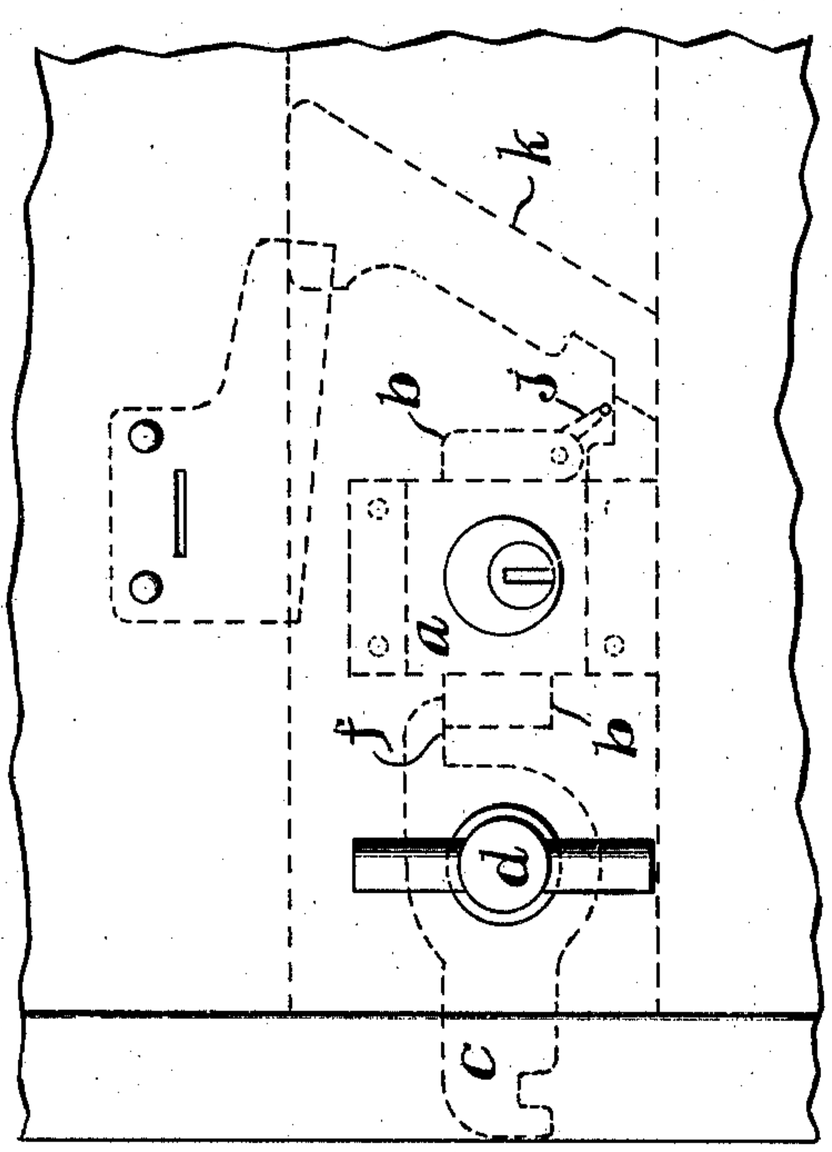

Fig. 6.

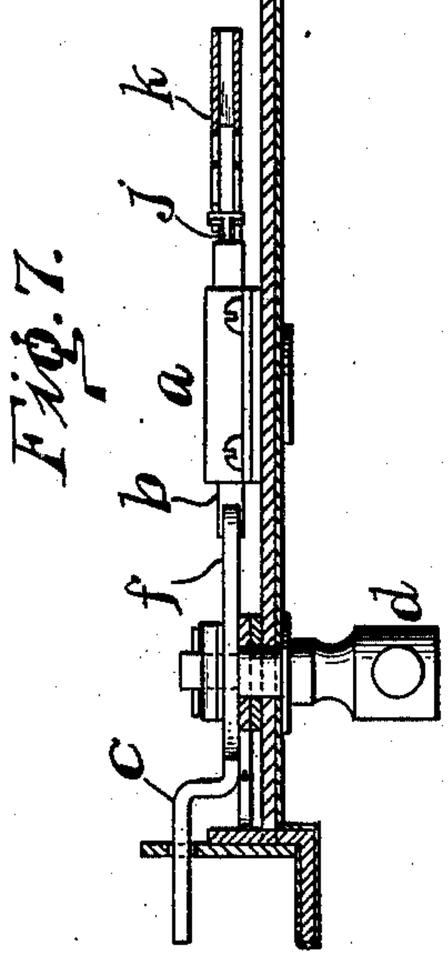

Fig. 7.

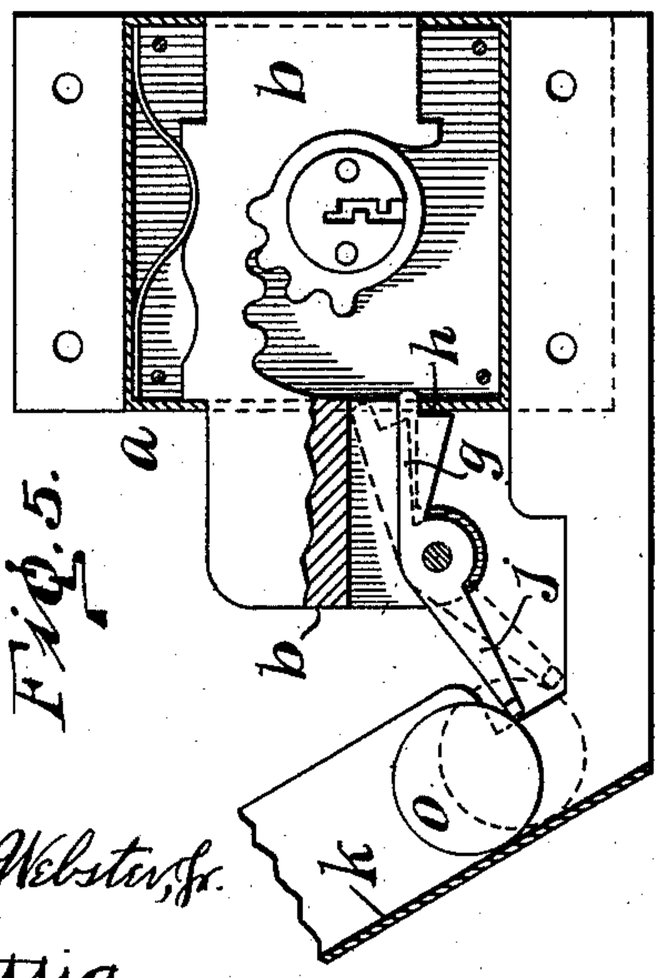

Fig. 5.

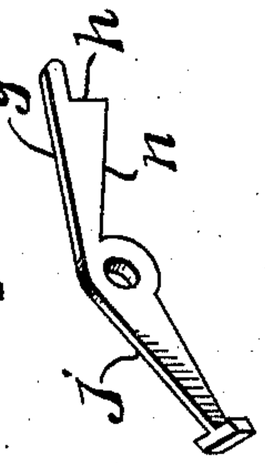

Fig. 8.

Witnesses

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UNITED STATES PATENT OFFICE.

JAMES S. MERRITT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO MERRITT & COMPANY, A CORPORATION.

COIN-CONTROLLED LOCK.

963,379. Specification of Letters Patent. **Patented July 5, 1910.**

Application filed November 19, 1908. Serial No. 463,376.

To all whom it may concern:

Be it known that I, JAMES S. MERRITT, a citizen of the United States, and resident of the city and county of Philadelphia, State of Pennsylvania, have invented an Improvement in Coin-Controlled Locks, of which the following is a specification.

My invention relates particularly to a coin controlled lock, in which the bolt or locking mechanism is normally unlocked and retained in unlocked condition by a coin controlled detent or device, which is released upon the deposit of the coin to permit the mechanism to be locked. Such a lock is particularly adapted, for example, for clothes lockers in theaters, public halls and the like, to enable a person to place his wraps in an open locker and then, on the deposit of a coin, lock the locker and remove the key. When the locker is again unlocked for the removal of the wraps the bolt or locking mechanism is again automatically locked by the coin controlled detent in unlocked condition, and will remain in that condition until it is operated again by the coin deposited by another user. It is essential to the successful operation of a lock of this kind for the purpose intended, that, while the coin shall immediately release the detent or locking device, it shall also maintain the detent in unlocked condition until the lock has been operated to lock the door. To this end I employ a coin controlled detent having a finger projecting in the path of the coin and operated by its weight so as to actuate the detent and release the bolt or locking mechanism, but having its range of movement, which is caused by the weight of the coin, so limited that it will be insufficient to release the coin and permit it to drop into the coin receptacle. When, however, the bolt is projected by the key into locking position this finger is moved away so that the coin is released, and the detent may return by gravity into locking position when the bolt is again retracted. The detent when unlocked by the coin will thus be maintained in unlocked condition until the lock has been operated to project the bolt into locking position.

It is also an object of my invention to provide a lock of the character described which shall be simple in construction and shall involve little alteration in or addition to the ordinary locks now commonly employed in clothes lockers and the like.

In the drawings, Figure 1 is a rear elevation of a coin controlled lock embodying the invention and showing the same after it has been operated; Fig. 2 is a similar view showing the lock before it has been operated; Figs. 3 and 4 are side elevations of the lock controlled catches respectively showing the same closed and opened; Fig. 5 is a longitudinal section of the lock showing the same at the moment the coin is acting; Fig. 6 is a front elevation showing the lock in dotted lines; Fig. 7 is a horizontal section on the line A—A of Fig. 6; and Fig. 8 is a perspective view of the coin controlled dog which controls the lock.

The lock *a* may be of any suitable construction having a key controlled bolt *b*. In the construction shown, in which the lock is applied to the door of a clothes locker having a pivoted catch *c* operated by a handle *d* and controlling vertical bolts *e*, *e*—which is of well known construction—the bolt *b* controls the catch, by projecting under its heel *f* and locking it when the bolt is projected, as shown in Fig. 1, and permitting the catch to be operated and unlocked when the bolt is retracted, as shown in Fig. 2. The bolt may, however, act directly as the means of locking the door in the common manner without the employment of the catch *c*.

g is a dog pivoted to the rear of the bolt, the front end *h* of which acts as a detent to prevent the projection of the bolt when the dog is in the normal lowered position which is assumed by gravity, as shown in Figs. 2 and 5.

For simplicity of construction, I prefer to pivot the dog in a narrow channel *i* cut in the lower rear edge of the bolt with the detent arranged to abut against the back of the bolt-casing as shown in Fig. 5. The rear end of the dog is extended beyond the bolt in the form of a finger *j* projecting in the path of the coin *o* as it descends in the coin-chute *k*. The weight of the coin on the finger *j* will rock the dog on its pivot and lift its detent *h* in the channel *i* out of engagement with the bolt casing, so that the bolt may be projected to lock the door. The extent of movement, however, which is thus produced by the weight of the coin, while

sufficient to release the detent, is not enough to allow the coin to drop, and the dog will therefore be maintained in raised position until the bolt is operated by the key. It is therefore impossible for the dog to drop back and relock the bolt before one using the device has had time to turn the key. This is clearly shown in dotted lines in Fig. 5, where the contact of the inner end of the dog with the top of the channel limits the extent of movement. As soon as the bolt is projected the finger *j* moves forward and the coin is released and falls from the chute into the coin receptacle. When the door is again unlocked and the bolt is retracted, the dog drops back by gravity and its detent reëngages the bolt-casing. To prevent the dog impeding the retraction of the bolt its lower edge, between the detent and pivot, may be inclined, as shown at *n*, and this inclined edge will ride over the edge of the bolt-casing during the movement of the bolt.

By the use of a narrow, flat dog, such as is shown, pivoted in a channel cut in the rear of the bolt and having its detent acting on the back of the bolt casing, a very simple construction is provided for the purpose intended, without enlarging the size of the lock and with the addition of but two parts—the dog and its pivot. While this is the preferred form, I do not mean to limit myself to this exact construction.

What I claim is as follows:

1. In coin-controlled locking mechanism, the combination with a lock having a key-actuated bolt, of a coin-controlled dog pivoted to the bolt and arranged to normally retain it against projection into locking position, and a finger carried by said dog and projecting into the path of the coin and adapted to be operated thereby to release the dog and permit the bolt of the lock to be moved by the key into locking position.

2. In coin-controlled locking mechanism, the combination with a lock having a key-actuated bolt, of a coin-controlled dog pivoted to the bolt and arranged to normally retain it against projection into locking position, a finger carried by said dog and projecting into the path of the coin and adapted to be operated thereby to release the dog and permit the bolt of the lock to be moved by the key into locking position, and means to limit the extent of movement of said finger by the coin to prevent it from passing out of the path of the coin and releasing said coin until the finger is moved by the movement of the bolt into locking position by the key.

3. In coin-controlled locking mechanism, the combination with a lock and its casing embracing a key-actuated bolt, of a coin-controlled dog pivoted to the rear of the bolt and having a detent normally acting on the lock-casing to retain the bolt retracted in unlocked position, and a finger carried by said dog and projecting into the path of the coin and adapted to be operated thereby to move the dog and release its detent and permit the bolt of the lock to be moved by the key into locking position.

4. In a coin-controlled lock, the combination of the bolt having a narrow channel cut in its rear, a dog pivoted in said channel and having at its front end a detent arranged to normally retain the bolt retracted in unlocked position, and at its rear a finger projecting into the path of the coin and adapted to be operated thereby to lift the dog and release its detent and permit the bolt to be projected into locking position, and means to limit the extent of movement of said finger under the weight of the coin to prevent it from passing out of the path of the coin and releasing it until the finger is moved forward by the projection of the bolt into locking position.

5. In a coin-controlled lock, the combination of a bolt-casing, a bolt having the narrow channel *i* cut in its rear lower edge, and the narrow, flat dog *g* pivoted in said channel and having at its front a detent *h*, adapted to abut against the rear of the bolt-casing when the bolt is retracted in unlocked position, and at its back the finger *j* projecting from the back of the bolt into the path of the coin, and adapted to be actuated thereby to rock the dog and move its detent into the channel *i* out of engagement with the bolt-casing, thereby permitting the bolt to be projected into locking position.

6. In a coin-controlled lock, the combination of a bolt-casing, a bolt having the narrow channel *i* cut in its rear lower edge, and the narrow, flat dog *g* pivoted in said channel and having at its front a detent *h*, adapted to abut against the rear of the bolt-casing when the bolt is retracted in unlocked position, and at its back the finger *j* projecting from the back of the bolt into the path of the coin, and adapted to be actuated thereby to rock the dog and move its detent into the channel *i* out of engagement with the bolt-casing, thereby permitting the bolt to be projected into locking position, the range of movement of said finger under the weight of the coin being insufficient to release the coin and permit it to pass, whereby the finger and the dog will be maintained in unlocked position by the coin until the bolt is projected.

7. In coin-controlled locking mechanism, the combination of a lock having a key-actuated bolt, and a pivoted dog carried by said bolt and normally retaining said bolt retracted in unlocked position, said dog having a finger projecting into the path of the coin and adapted to be actuated thereby to operate the dog and release the bolt and permit it to be moved by the key into lock-

ing position, the range of movement of said finger under the weight of the coin being insufficient to release the coin and permit it to pass, whereby the dog will be maintained in unlocked position by the coin until the bolt is moved by the key into locked position.

8. In coin-controlled locking mechanism, the combination of a lock having a key-actuated bolt, a coin controlled dog arranged to normally retain the bolt against movement into locking position, and a dog-controlling finger projecting into the path of the coin and adapted to be operated thereby to release the dog and permit the bolt to be moved by its key into locking position.

In testimony of which invention, I have hereunto set my hand.

JAMES S. MERRITT.

Witnesses:
ERNEST HOWARD HUNTER,
AUGUST W. RETTIG.